TRANSMITTAL OF APPEAL BRIEF

Docket No.
00-VE03.13

In re Application of: Robert D. Farris, et al.

Application No.	Filing Date	Examiner	Group Art Unit
09/617,816	July 17, 2000	John Pezzlo	2662

Invention: TELEPHONY COMMUNICATION VIA VARIED REDUNDANT NETWORKS

TO THE COMMISSIONER OF PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed: June 11, 2004 .

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Dated: August 10, 2004

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Docket No.: 00-VE[redacted]3

AF 1718

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Farris, et al. Group Art Unit: 2662

Serial No.: 09/617,816 Examiner: Pezzlo, John

Filed: July 17, 2000

For: **TELEPHONY COMMUNICATION VIA VARIED REDUNDANT NETWORKS**

Attorney Docket No.: 00-VE03.13

APPEAL BRIEF

Mail Stop Appeal Brief- Patents
Commissioner for Patents
United States Patent and Trademark Office
Washington D.C. 20231

Dear Sir:

This appeal is from the decision of the Primary Examiner dated March 22, 2004 ("Final Office Action") finally rejecting claims 1-8, which are reproduced as an Appendix to this brief. The Notice of Appeal was filed on June 11, 2004. This application was filed on July 17, 2000. Submitted herewith are two additional copies of this Appeal Brief.

I. REAL PARTY IN INTEREST

The real party in interest is Verizon Services Corp., Assignee, a corporation organized and existing under the laws of the state of Delaware, and having a place of business at 1095 Avenue of the Americas, New York, NY 10036.

II. RELATED APPEALS AND INTERFERENCES

Applicants (hereinafter "Appellants") are not aware of any related appeals or interferences that would affect the Board's decision on the current appeal.

III. STATUS OF CLAIMS

Claims 1-44 are pending. Claims 1-8 have been rejected under 35 U.S.C. § 102(e) as anticipated by U.S. 6,054,653 ("Farris"). Claims 9, 11, and 13-44 have been allowed. Claims 10 and 12 have been objected to as depending on rejected base claims, but indicated to be allowable if rewritten in independent form including all limitations of the base claim and any intervening claims. Claims 1-8 are the subject of this appeal.

IV. STATUS OF AMENDMENTS

No Amendment After Final Rejection has been entered into the prosecution record of the present application.

V. SUMMARY OF THE INVENTION

The invention of the present patent application relates to providing public and private telephone service between two terminals over selectable networks of differing types. More particularly the invention relates to providing such telephone service in a manner to permit optimization of a selectable parameter, such as minimizing cost, maximizing quality, maximizing availability of connection, and the like. (Specification, page 1, lines 2-9.)

Accordingly, there is provided a switched telephone network arranged in a manner to enable packet voice communication between telephone terminals via multiple redundant packet switched networks. The packet switched networks may utilize different protocols, be operated by different entities, and have primary functions other than voice communication. In one preferred embodiment of the invention, packet voice communication may be provided over internetworked networks, such as the Internet, and alternately over a packet switched network whose primary function is control of a circuit switched telephone network. The common channel interoffice switching system (CCIS) of a public switched telephone network (PSTN) is a preferred example. (Specification, page 18, line 16 – page 19, line 9.)

However, in another embodiment, the invention advantageously avoids use of PSTNs and re-routes traffic over a secondary packet-switched network. Using PSTNs for the secondary network has the disadvantage of potentially tying up from 8 to 10 switching offices for a call between two stations in even a limited area. Accordingly, this embodiment uses a secondary packet switched network, thereby advantageously

avoiding tying up switches between the originating office and the terminating office for a call. (Specification, page 42, line 20 – page 44, line 10.)

A voice communication link may be established from telephone terminal to telephone terminal via the Internet, the quality of voice communication may be monitored, and the link may be transferred to the common channel interoffice signaling network if and when the quality of voice communication deteriorates beneath a pre-established norm. The invention provides a means for monitoring the links of the common channel interoffice signaling system carrying the packetized voice communication and collecting the information needed to permit charging for the voice communication by time duration or by cells used to carry the packetized voice signal. The customer may be provided with the option of establishing the norm for diversion of the communication, or may elect which path is to be selected as the primary path. (Specification, page 19, line 10 – page 20, line 4.)

VI. ISSUE

Does Farris teach the limitation recited in claims 1-8 of "establishing a second voice communication link between said terminals via a second landline packet switched network when said monitored quality of service departs from a predetermined value"?

VII. GROUPING OF CLAIMS

For purposes of this Appeal, claims 1-8 stand or fall together.

VIII. ARGUMENT

A. Farris does not teach or suggest use of "a second landline packet-switched network."

Claims 1-8 stand rejected under 35 U.S.C. 102(e) as anticipated by Farris. Independent claim 1 recites:

> *A method of voice communication between two terminals including the steps of:*
> *. establishing a voice communication link between said terminals via a first landline public packet switched network;*
> *carrying voice information between said terminals over said link;*
> *monitoring quality of service of communication in said public packet switched network;*

> *establishing a second voice communication link between said terminals via a second landline packet switched network when said monitored quality of service departs from a predetermined value.*

Regarding "establishing a second voice communication link between said terminals via a second landline packet switched network when said monitored quality of service departs from a predetermined value" as recited in claim 1, the Examiner, in the Final Office Action, states that:

> Farris discloses setting up a second voice communication over a pipeline between the two gateway servers which are coupled to the terminals when the monitored QoS [quality of service] departs from a predetermined value. [citations omitted]
>
> The pipeline is a second landline packet switched network which is the ISDN (Integrated Digital Services Network). In the invention [disclosed in Farris] the ISDN is a separate data network from the POTS and does not utilize the PSTN voice circuit-switching facilities. It is well known in the art, that the ISDN narrowband (64 kbps data and voice) and ISDN broadband (ATM) facilities were developed by the telephone companies to provide data servers not part of the PSTN normal circuit-switched POTS. [citations omitted] (Final Office Action, p. 3.)

However, the Examiner has misread Farris, which clearly teaches use of the PSTN, a *circuit switched network*, for transmission of ISDN calls. Accordingly, Farris does not teach or suggest "establishing a second voice communication link between said terminals via a second landline *packet switched network*" as is recited in independent claim 1.

Farris describes diverting calls from a packet switched network "during periods of unacceptable network conditions, through the Public Switched Telephone Network (PSTN)." (Abstract; col. 5, lines 28-30.) Accordingly, Farris describes "a telecommunications system using a wide area packet switched network such as the Internet, in combination with a plurality of PSTNs." (Col. 6, lines 6-9.) Specifically, Farris describes that when traffic conditions in the packet switched network fall below an acceptable threshold level, the PSTN gateway

> will establish a call through the ISDN connection to the PSTN to the remote gateway. . . . Such a call has been characterized as a pipeline in this disclosure in part because packets from a plurality of different calls can be multiplexed into one or more B channels, without permanent dedication of a call to the ISDN connection. That is, the established pipeline can remain active for additional packet transmission after specific calls have been terminated. . . . At step 247, the packets are multiplexed

> into the ISDN data stream and routed through the PSTN to the remote gateway at step 249. (Farris, col. 14, ll. 17-33.)

Farris further describes that an ISDN pipeline connection is set up over the PSTN to route two-way traffic between gateways until Internet conditions improve. (Col. 13, ll. 14-18.) A MUX/DEMUX 215 routine determines whether to route call packets over the packet network or over the ISDN pipeline, and in the case of routing via the ISDN pipeline, "[t]he data packets are multiplexed by [the MUX/DEMUX routine] into ISDN B channels for transmission over the PSTN ISDN pipeline to the remote gateway." (Col. 13, ll. 25-35.) Accordingly, it is clear from Farris' disclosure that the use of ISDN comprises use of the conventional circuit switched network – a PSTN – and not a separate second packet switched network, as recited by claim 1.[1]

Appellants' Specification explains that avoiding use of PSTNs, such as are required by the Farris reference, is advantageous because it avoids the inefficiencies of a circuit-switched network:

> [U]se of PSTNs may tie up from 8 to 10 switching offices for a call between two stations in even a limited area. If that same call is handled over the SS7 network it goes directly through that ***packet network*** without tying up any switches between the originating office and the terminating office. (Specification, page 44, lines 5-10 (emphasis added).)

This clear advantage of Appellants' claimed invention over the prior art of record further reinforces the difference between a "second landline packet switched network" and a PSTN.

Accordingly, it is clear that the cited prior art does not read on each and every limitation of Appellants' independent claim 1. Therefore, the Board is respectfully requested to reverse the Examiner and direct allowance of claim 1, as well as claims 2-8 depending therefrom.

B. As is well known, a PSTN is a circuit-switched network, not a packet-switched network.

The Examiner has asserted in the Final Office Action that the second network described in Farris is a packet switched network because it is described in Farris as an

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[1] Appellants further note that the fact that Farris describes sending "packets" over the ISDN call circuit between the gateways does not indicate that the ISDN call circuit is packet *switched*, but rather that such connection is configured to carry data (packets).

"ISDN pipeline." (Final Office Action, p. 3.) However, as discussed above, Farris' description clearly indicates that the "second network" used to carry voice traffic is not a packet-switched network, but rather the PSTN, in which an ISDN call has been established.

To support the rejection, the Examiner has relied in the Final Office Action on an excerpt from a book by B. Keiser and E. Strange entitled Digital Telephony and Network Integration (hereinafter "Keiser"), that allegedly teaches that an ISDN is a separate packet network that handles voice, data and multimedia and is distinct from a "conventional POTS network." (Final Office Action, p. 7.) However, Appellants continue to assert that Keiser does not stand for the proposition that ISDN is a separate packet switched network from a PSTN network that supports so-called "plain old telephone service" (POTS). Keiser describes providing ISDN using a digital subscriber line card on a 2-wire loop using adaptive echo cancellation, thus supporting Appellants' position that ISDN uses the conventional switched telephone network.[2] To the extent Keiser describes the use of ISDN over a packet switched network (alleged by the Examiner due to the description of a "Packet Switch Unit" in an ISDN-capable device depicted in Keiser), Keiser is describing use of an infrastructure other than PSTNs.

Furthermore, regardless of whether Keiser teaches packet-switching or circuit-switching ISDN calls, Farris – the reference whose teaching of ISDN has been used to reject Appellants' claims – clearly describes diverting calls to an ISDN connection established through the PSTN, *i.e.,* a circuit switched and not a packet switched network. The Examiner does not identify any teaching or suggestion to modify Farris by diverting calls to ISDN over a packet switched network, and thus regardless of what Keiser allegedly teaches with respect to ISDN, that teaching is irrelevant to the Examiner's rejection of the claims based on Farris.

In sum, not only does the Farris reference teach that ISDN uses PSTNs, but it is clear that ISDN, in the context of that reference, would use the infrastructure of the PSTN. The PSTN is not a packet switched network, and therefore at least one of the

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[2] As additional support, in their Amendment filed January 20, 2004, Appellants cited an article from Hyperdictionary.com that explained that ISDN is a digital standard that uses "mostly existing Public Switched Telephone Network (PSTN)

elements of claims 1-8 are missing from the cited prior art, rendering claims 1-8 allowable of the cited prior art.

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switches and wiring." That ISDN is a digital standard does not preclude its use over standard circuit switched infrastructure.

IX. CONCLUSION

In view of the foregoing arguments, Appellants respectfully submits that claims 1-8 are novel over the cited references. The Examiner's rejection of Claims 1-8 is improper because the prior art of record does not teach or suggest each and every element of the claimed invention. In view of the above analysis, a reversal of the rejections of record is respectfully requested of this Honorable Board.

It is believed that a fee of $330 is due with this Appeal Brief. Please charge our Deposit Account No. 07-2347, under Order No. 00-VE03.13A, from which the undersigned is authorized to draw, for any fee due with this Appeal Brief. To the extent necessary, a petition for extension of time under 37 C.F.R. § 1.136 is hereby made, the fee for which should be charged to the above account.

Dated: August 10, 2004

Respectfully submitted,

By _____

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X. APPENDIX – CLAIMS ON APPEAL

1. A method of voice communication between two terminals including the steps of:

establishing a voice communication link between said terminals via a first landline public packet switched network;

carrying voice information between said terminals over said link;

monitoring quality of service of communication in said public packet switched network;

establishing a second voice communication link between said terminals via a second landline packet switched network when said monitored quality of service departs from a predetermined value.

2. A method according to claim 1 wherein said parameter comprises a measure of the quality of delivered voice signal.

3. A method according to claim 1 wherein said establishment of said second voice communication link occurs automatically in response to the monitored quality of service falling below a predetermined threshold.

4. A method according to claim 1 including the step of transmitting a recorded voice message to the terminal which initiated the communication prior to establishing said second voice communication link.

5. A method according to claim 4 including the step of transmitting a response to said message from said terminal which initiated said communication prior to establishing said second voice communication link.

6. A method according to claim 1 wherein said terminals are connected to said first and second voice communication links via a switched network.

7. A method according to claim 6 wherein said switched network comprises a public switched telephone network.

8. A method according to claim 7 wherein said terminals comprise telephone terminals.